

**Senate Bill No. 1298**

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Passed the Senate August 29, 2012

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*Secretary of the Senate*

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Passed the Assembly August 28, 2012

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*Chief Clerk of the Assembly*

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This bill was received by the Governor this \_\_\_\_\_ day  
of \_\_\_\_\_, 2012, at \_\_\_\_\_ o'clock \_\_\_\_M.

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*Private Secretary of the Governor*

## CHAPTER \_\_\_\_\_

An act to add Division 16.6 (commencing with Section 38750) to the Vehicle Code, relating to vehicles.

## LEGISLATIVE COUNSEL'S DIGEST

SB 1298, Padilla. Vehicles: autonomous vehicles: safety and performance requirements.

Existing law requires the Department of the California Highway Patrol to adopt rules and regulations that are designed to promote the safe operation of specific vehicles, including, among other things, schoolbuses and commercial motor vehicles. Existing law also requires the Department of Motor Vehicles to register vehicles that are being operated in this state and to issue a license plate to an applicant for the operation and identification of that person's vehicle.

This bill would authorize the operation of an autonomous vehicle, as defined, on public roads for testing purposes, by a driver who possesses the proper class of license for the type of vehicle being operated if specified requirements are met, including that the driver be seated in the driver's seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency. The bill would prohibit, except as provided for testing purposes, the operation of such a vehicle on public roads until the manufacturer submits an application to the department that includes various certifications, including a certification that the autonomous technology satisfies certain requirements, and the application is approved by the department pursuant to the regulations that the department would be required to adopt. The bill would require one of the certifications to specify that the autonomous vehicle's technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

The bill would require that the Department of Motor Vehicles adopt regulations as soon as practicable, but no later than January

1, 2015, setting forth requirements for the submission of evidence of insurance, surety bond, or self-insurance required by the bill and requirements for the submission or approval of an application to operate an autonomous vehicle, including any testing, equipment, or performance standards, as specified, and to hold public hearings on the adoption of any regulation applicable to the operation of an autonomous vehicle without the presence of a driver inside the vehicle. The bill would provide that federal regulations promulgated by the National Highway Traffic Safety Administration supersede state law or regulation when found to be in conflict.

The bill would require the department to approve an application submitted by a manufacturer upon making specified findings and would authorize the department to impose additional requirements if the application seeks approval for autonomous vehicles where there is no person in the driver's seat. The bill would also require the department to notify the Legislature of the receipt of an application from a manufacturer seeking approval to operate an autonomous vehicle capable of operating without the presence of a driver inside the vehicle and the approval of the application. The bill would provide that approval of the application is effective no sooner than 180 days after the date the application is submitted.

The department would be authorized to charge a fee for the application in an amount necessary to recover all costs reasonably incurred by the department.

*The people of the State of California do enact as follows:*

SECTION 1. The Legislature finds and declares all of the following:

(a) Development is actively under way of new technology that, through the use of computers, sensors, and other systems, permits a motor vehicle to operate without the active control and continuous monitoring of a human operator. Motor vehicles with this technology, referred to as "autonomous vehicles," offer significant potential safety, mobility, and commercial benefits for individuals and businesses in the state and elsewhere.

(b) Autonomous vehicles have been operated safely on public roads in the state in recent years by entities developing and testing this technology.

(c) The State of California, which presently does not prohibit or specifically regulate the operation of autonomous vehicles, desires to encourage the current and future development, testing, and operation of autonomous vehicles on the public roads of the state. The state seeks to avoid interrupting these activities while at the same time creating appropriate rules intended to ensure that the testing and operation of autonomous vehicles in the state are conducted in a safe manner.

(d) Toward that end, the Legislature finds it appropriate to authorize the establishment of specific safety requirements for the testing and operation of autonomous vehicles, and to require that future testing and operation of autonomous vehicles in the state comply with those requirements.

SEC. 2. Division 16.6 (commencing with Section 38750) is added to the Vehicle Code, to read:

#### DIVISION 16.6. AUTONOMOUS VEHICLES

38750. (a) For purposes of this division, the following definitions apply:

(1) “Autonomous technology” means technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator.

(2) (A) “Autonomous vehicle” means any vehicle equipped with autonomous technology that has been integrated into that vehicle.

(B) An autonomous vehicle does not include a vehicle that is equipped with one or more collision avoidance systems, including, but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator.

(3) “Department” means the Department of Motor Vehicles.

(4) An “operator” of an autonomous vehicle is the person who is seated in the driver’s seat, or if there is no person in the driver’s seat, causes the autonomous technology to engage.

(5) A “manufacturer” of autonomous technology is the person as defined in Section 470 that originally manufactures a vehicle and equips autonomous technology on the originally completed vehicle or, in the case of a vehicle not originally equipped with autonomous technology by the vehicle manufacturer, the person that modifies the vehicle by installing autonomous technology to convert it to an autonomous vehicle after the vehicle was originally manufactured.

(b) An autonomous vehicle may be operated on public roads for testing purposes by a driver who possesses the proper class of license for the type of vehicle being operated if all of the following requirements are met:

(1) The autonomous vehicle is being operated on roads in this state solely by employees, contractors, or other persons designated by the manufacturer of the autonomous technology.

(2) The driver shall be seated in the driver’s seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency.

(3) Prior to the start of testing in this state, the manufacturer performing the testing shall obtain an instrument of insurance, surety bond, or proof of self-insurance in the amount of five million dollars (\$5,000,000), and shall provide evidence of the insurance, surety bond, or self-insurance to the department in the form and manner required by the department pursuant to the regulations adopted pursuant to subdivision (d).

(c) Except as provided in subdivision (b), an autonomous vehicle shall not be operated on public roads until the manufacturer submits an application to the department, and that application is approved by the department pursuant to the regulations adopted pursuant to subdivision (d). The application shall contain, at a minimum, all of the following certifications:

(1) A certification by the manufacturer that the autonomous technology satisfies all of the following requirements:

(A) The autonomous vehicle has a mechanism to engage and disengage the autonomous technology that is easily accessible to the operator.

(B) The autonomous vehicle has a visual indicator inside the cabin to indicate when the autonomous technology is engaged.

(C) The autonomous vehicle has a system to safely alert the operator if an autonomous technology failure is detected while the autonomous technology is engaged, and when an alert is given, the system shall do either of the following:

(i) Require the operator to take control of the autonomous vehicle.

(ii) If the operator does not or is unable to take control of the autonomous vehicle, the autonomous vehicle shall be capable of coming to a complete stop.

(D) The autonomous vehicle shall allow the operator to take control in multiple manners, including, without limitation, through the use of the brake, the accelerator pedal, or the steering wheel, and it shall alert the operator that the autonomous technology has been disengaged.

(E) The autonomous vehicle's autonomous technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(F) The autonomous technology does not make inoperative any Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(G) The autonomous vehicle has a separate mechanism, in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object, or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. The data shall be preserved for three years after the date of the collision.

(2) A certification that the manufacturer has tested the autonomous technology on public roads and has complied with the testing standards, if any, established by the department pursuant to subdivision (d).

(3) A certification that the manufacturer will maintain a surety bond, or proof of self-insurance as specified in regulations adopted by the department pursuant to subdivision (d), in an amount of five million dollars (\$5,000,000).

(d) (1) As soon as practicable, but no later than January 1, 2015, the department shall adopt regulations setting forth requirements for the submission of evidence of insurance, surety bond, or self-insurance required by subdivision (b), and the submission and approval of an application to operate an autonomous vehicle pursuant to subdivision (c).

(2) The regulations shall include any testing, equipment, and performance standards, in addition to those established for purposes of subdivision (b), that the department concludes are necessary to ensure the safe operation of autonomous vehicles on public roads, with or without the presence of a driver inside the vehicle. In developing these regulations, the department may consult with the Department of the California Highway Patrol, the Institute of Transportation Studies at the University of California, or any other entity identified by the department that has expertise in automotive technology, automotive safety, and autonomous system design.

(3) The department may establish additional requirements by the adoption of regulations, which it determines, in consultation with the Department of the California Highway Patrol, are necessary to ensure the safe operation of autonomous vehicles on public roads, including, but not limited to, regulations regarding the aggregate number of deployments of autonomous vehicles on public roads, special rules for the registration of autonomous vehicles, new license requirements for operators of autonomous vehicles, and rules for revocation, suspension, or denial of any license or any approval issued pursuant to this division.

(4) The department shall hold public hearings on the adoption of any regulation applicable to the operation of an autonomous vehicle without the presence of a driver inside the vehicle.

(e) (1) The department shall approve an application submitted by a manufacturer pursuant to subdivision (c) if it finds that the applicant has submitted all information and completed testing necessary to satisfy the department that the autonomous vehicles are safe to operate on public roads and the applicant has complied with all requirements specified in the regulations adopted by the department pursuant to subdivision (d).

(2) Notwithstanding paragraph (1), if the application seeks approval for autonomous vehicles capable of operating without the presence of a driver inside the vehicle, the department may impose additional requirements it deems necessary to ensure the safe operation of those vehicles, and may require the presence of a driver in the driver's seat of the vehicle if it determines, based on its review pursuant to paragraph (1), that such a requirement is necessary to ensure the safe operation of those vehicles on public roads. The department shall notify the Legislature of the receipt of an application from a manufacturer seeking approval to operate an autonomous vehicle capable of operating without the presence of a driver inside the vehicle and approval of the application. Approval of the application shall be effective no sooner than 180 days after the date the application is submitted.

(f) Nothing in this division shall limit or expand the existing authority to operate autonomous vehicles on public roads, until 120 days after the department adopts the regulations required by paragraph (1) of subdivision (d).

(g) Federal regulations promulgated by the National Highway Traffic Safety Administration shall supersede the provisions of this division when found to be in conflict with any other state law or regulation.

(h) The manufacturer of the autonomous technology installed on a vehicle shall provide a written disclosure to the purchaser of an autonomous vehicle that describes what information is collected by the autonomous technology equipped on the vehicle. The department may promulgate regulations to assess a fee upon a manufacturer that submits an application pursuant to subdivision (c) to operate autonomous vehicles on public roads in an amount necessary to recover all costs reasonably incurred by the department.

















Approved \_\_\_\_\_, 2012

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*Governor*